

Please amend the above-referenced application as follows:

In The Specification:

Please replace the title of the invention beginning at page 1, line 1, with the following rewritten title:

b
Protein Biopolymer Markers Predictive Indicative Of Insulin Resistance

Please replace the paragraph beginning at page 40, line 14, with the following rewritten paragraph:

Preparatory Protocols:

Any of these protocols may be selected from a column flow-through stream, a column elution stream, or a column scrub stream.

Hi Q is a strong anion exchanger made of methyl acrylate co-polymer with the functional group: $-N^+(CH_3)_2$;

Hi S is a strong cation exchanger made of methyl acrylate co-polymer with the functional group: $-SO_3^-$;

DEAE is a diethylaminoethyl which is a weak cation exchanger made of methyl acrylate co-polymer with the functional group:

$-N^+(C_2H_5)_2$;

PS is phenyl sepharose SEPHAROSE;

BS is buytl sepharose SEPHAROSE.

Please replace the paragraph beginning at page 41, line 4,
with the following rewritten paragraph:

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Note that the supports, i.e. methyl acrylate and ~~sepharose~~
SEPHAROSE are different, but non-limiting examples, as the same
functional group on different supports will function, albeit
possibly with different effects.

Please replace the paragraph beginning at page 41, line 22,
with the following rewritten paragraph:

Butyl ~~sepharose~~ SEPHAROSE column protocol:

- 1) Cast 150 μ l bed volume column;
 - 2) Equilibrate column in 5 bed volumes of 1.7 M $(\text{NH}_4)_2\text{SO}_4$ in 50 mM PB pH 7.0 (binding buffer);
 - 3) Dissolve 35 μ l of sera in 465 μ l of binding buffer and apply;
 - 4) Wash column in 5 bed volumes of binding buffer;
 - 5) Elute column in 120 μ l of 0.4 M $(\text{NH}_4)_2\text{SO}_4$ in 50 mM PB pH 7.0;
 - 6) Elute column in 120 μ l of 50 mM PB pH 7.0;
 - 7) Scrub column with 120 μ l sequentially with each of 0.1% triton, 1.0% triton and 2% SDS in 62.5 mM Tris pH 6.8.
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Please replace the paragraph beginning at page 42, line 14,
with the following rewritten paragraph:

Phenyl ~~sepharose~~ SEPHAROSE column protocol:

- 1) Cast 150 μ l bed volume column;
 - 2) Equilibrate column in 5 bed volumes of 1.7 M $(\text{NH}_4)_2\text{SO}_4$ in 50 mM PB pH 7.0 (binding buffer);
 - 3) Dissolve 35 μ l of sera in 465 μ l of binding buffer and apply;
 - 4) Wash column in 5 bed volumes of binding buffer;
 - 5) Elute column in 120 μ l of 0.2 M $(\text{NH}_4)_2\text{SO}_4$ in 50 mM PB pH 7.0;
 - 6) Elute column in 120 μ l of 50 mM PB pH 7.0;
 - 7) Scrub column with 120 μ l sequentially with each of 0.1% triton, 1.0% triton and 2% SDS in 62.5 mM Tris pH 6.8.
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Please replace the paragraph amended at page 2 of the Response filed April 23, 2002, with the following rewritten paragraph (it is noted that the paragraph begins at page 46, line 6 of the original disclosure):

As a result of these procedures, the disease specific markers namely peroxisomal carnitine octanoyl transferase protein having a molecular weight of about 1208.6574 daltons and a sequence of SEQ ID NO:1, ~~betain/GABA~~ betaine/GABA transport protein having a molecular weight of about 1211.5591 daltons and a sequence of SEQ ID NO:2, and adrenergic, alpha 2A [[,]] receptor having a molecular weight of about 1446.7831 daltons having a sequence of SEQ ID NO:3 related to ~~Insulin Resistance~~ insulin resistance were found.

BS

Please replace the paragraph beginning at page 66, line 2,
with the following rewritten paragraph:

The instant invention involves the use of a combination of preparatory steps in conjunction with mass spectroscopy and time -of-flight detection procedures to maximize the diversity of biopolymers which are verifiable within a particular sample. The cohort of biopolymers verified within such a sample is then viewed with reference to their ability to evidence at least one particular disease state; thereby enabling a diagnostician to gain the ability to characterize either the presence or absence of ~~said~~ at least one disease state relative to recognition of the presence and/or the absence of ~~said~~ the biopolymer, predict disease risk assessment, and develop therapeutic avenues against ~~said~~ disease.

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